*CLAIM AMENDMENTS*

1. (Currently Amended) A thermal ~~type~~ infrared detector comprising:

a substrate;

a temperature sensor ~~of which electric~~ having electrical characteristics ~~are changed~~ that change in ~~accordance with~~ response to a temperature change caused by ~~infrared~~ absorption of infrared rays;

heat-insulating supporting legs ~~for~~ supporting and thermally insulating said temperature sensor ~~in a heat-insulating manner~~ and ~~serving as~~ including signal lines for reading out ~~electric~~ electrical signals from said temperature sensor; and

an infrared absorption layer ~~having~~ in thermal contact with said temperature sensor~~,~~, wherein each of said temperature sensor, said heat-insulating supporting legs, and said infrared absorption layer is ~~formed~~ in a respective different ~~planes that~~ plane and the planes are spatially ~~apart~~ separated from each other.

2. (Currently Amended) The thermal ~~type~~ infrared detector according to claim 1, wherein said temperature sensor and said infrared absorption layer ~~are formed in a region that overlaps~~ overlap said heat-insulating supporting legs when ~~seen from the direction of~~ viewed along incident infrared rays.

3. (Currently Amended) The thermal ~~type~~ infrared detector according to claim 1, wherein said temperature sensor and said infrared absorption layer ~~are formed in a region that~~ cover substantially ~~covers the entire surface~~ all of said heat-insulating supporting legs when seen ~~from the direction of~~ viewed along incident infrared rays

4. (Currently Amended) The thermal ~~type~~ infrared detector according to claim 1, wherein said infrared absorption layer, said heat-insulating supporting legs, and said temperature sensor are laminated sequentially when ~~seen from the direction of~~ viewed along incident infrared rays.

5. (Currently Amended) The thermal ~~type~~ infrared detector according to claim 1, wherein said temperature sensor comprises a diode or a plurality of diodes that are serially connected.

6. (Currently Amended) The thermal ~~type~~ infrared detector according to claim 1, wherein said temperature sensor comprises a transistor.

7. (Currently Amended) The thermal ~~type~~ infrared detector according to claim 1, wherein said substrate includes a mono-crystalline silicon layer ~~formed~~ on an insulating thin film and ~~wherein~~ said temperature sensor is ~~formed~~ in said mono-crystalline layer.

8. (Currently Amended) The thermal ~~type~~ infrared detector according to claim 1, wherein ~~the portion of~~ said substrate ~~under~~ opposite said temperature sensor is ~~removed~~ thinner than elsewhere.

9. (Currently Amended) The thermal ~~type~~ infrared detector according to claim 1, wherein said temperature sensor comprises a bolometer film.

10. (Currently Amended) A method for manufacturing a thermal ~~type~~ infrared detector comprising:

forming a temperature sensor on a substrate, ~~the electric~~ said temperature sensor having electrical characteristics ~~of said temperature sensor being changed~~ changing in accordance with a change in temperature ~~change~~;

forming a first ~~sacrifice~~ sacrificial layer ~~that covers~~ covering said temperature sensor and partially ~~contacts with~~ contacting said substrate;

removing a portion of said first ~~sacrifice~~ sacrificial layer to expose a portion of said temperature sensor;

forming a wiring layer on said first ~~sacrifice~~ sacrificial layer ~~so that~~, said wiring layer being electrically ~~connects~~ connected to said temperature sensor at a portion ~~exposed from~~ not covered by said first ~~sacrifice~~ sacrificial layer;

forming a second ~~sacrifice~~ sacrificial layer ~~that covers~~ covering said wiring layer and ~~partially contacts with~~ contacting part of said first ~~sacrifice~~ sacrificial layer;

forming via holes by removing a part of said first and second ~~sacrifice~~ sacrificial layers;

forming an infrared absorbing layer on said second ~~sacrifice~~ sacrificial layer so that said infrared absorbing layer contacts ~~with~~ said temperature sensor ~~via~~ through said via holes either directly or ~~interposing a~~ with an insulating layer ~~in between~~ interposed;

removing said second sacrifice layer, said first sacrifice layer, and ~~the~~ a portion of said substrate ~~under~~ opposite said temperature sensor.

11. (Currently Amended) A method for manufacturing a thermal ~~type~~ infrared detector comprising:

forming a first ~~sacrifice~~ sacrificial layer on a substrate;

forming a temperature sensor on said first ~~sacrifice~~ sacrificial layer, ~~the electric characteristics of~~ said temperature sensor ~~being changed~~ having electrical characteristics that change in accordance with changes in temperature on a substrate;

forming a second ~~sacrifice~~ sacrificial layer ~~that covers~~ covering said temperature sensor and partially ~~contacts with~~ contacting said first ~~sacrifice~~ sacrificial layer;

removing a portion of said second ~~sacrifice~~ sacrificial layer to expose a portion of said temperature sensor;

forming a wiring layer on said second ~~sacrifice~~ sacrificial layer ~~so that said wiring layer~~ electrically ~~connects~~ connected to said temperature sensor at a portion ~~exposed from~~ not covered by said second ~~sacrifice~~ sacrificial layer;

forming a third ~~sacrifice~~ sacrificial layer ~~that covers~~ covering said wiring layer and ~~partially contacts with~~ contacting part of said second sacrifice layer;

forming via holes by removing a part of said third and second ~~sacrifice~~ sacrificial layers;

forming an infrared absorbing layer on said third ~~sacrifice~~ sacrificial layer ~~so that said infrared absorbing layer contacts with~~ and contacting said temperature sensor ~~via~~ through said via holes either directly or ~~interposing a~~ with an insulating layer ~~in between~~ interposed;

removing said third ~~sacrifice~~ sacrificial layer, said second ~~sacrifice~~ sacrificial layer, and said first ~~sacrifice~~ sacrificial layer.

12. (Currently Amended) An infrared focal plane array comprising a plurality of thermal ~~type~~ infrared detectors according to claim 1, wherein said infrared detectors are arranged in a two-dimensional ~~manner~~ array.

13. (Currently Amended) An infrared focal plane array comprising a plurality of thermal type infrared detectors according to claim 5, wherein said infrared detectors are arranged in a two-dimensional ~~manner and applied~~ array, a forward bias voltage ~~to flow~~ is applied so a constant current flows, and ~~wherein~~ an the end-to-end voltage generated by incident infrared rays in each of said infrared detectors ~~are~~ is read out as an image signal.

14. (Currently Amended) The infrared focal plane array according to claim 13, further comprising a reference temperature sensor and differential input circuits to which ~~both~~

signals from both of said infrared detectors and said reference temperature sensor ~~enter~~ are applied, wherein said reference temperature sensor has ~~substantially the same~~ a temperature-voltage characteristic substantially the same as those of said infrared detectors and is substantially ~~non-sensitive~~ insensitive to ~~the~~ incident infrared rays.